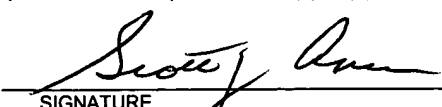


<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER <b>20030117-US</b> U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>107530392</b>
INTERNATIONAL APPLICATION NO. <b>PCT/US2004/032706</b>	INTERNATIONAL FILING DATE <b>04.10.2004 (04 Oct 2004)</b>	PRIORITY DATE CLAIMED <b>08.10.2003 (08 Oct 2003)</b>
TITLE OF INVENTION <b>CONSTRAINED TRACKING OF GROUND OBJECTS USING REGIONAL MEASUREMENTS</b>		
APPLICANT(S) FOR DO/EO/US <b>HANEY, Philip, J.</b>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li>4. <input checked="" type="checkbox"/> The US has been elected (Article 31).</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))           <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).           <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))           <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol>		
Items 11 to 20 below concern document(s) or information included:		
<ol style="list-style-type: none"> <li>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>13. <input type="checkbox"/> A preliminary amendment.</li> <li>14. <input checked="" type="checkbox"/> An Application Data Sheet under 37 CFR 1.76. <b>3 pages</b></li> <li>15. <input type="checkbox"/> A substitute specification.</li> <li>16. <input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.</li> <li>18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> <li>20. <input checked="" type="checkbox"/> Other items or information: <b>Copy of PCT application no. PCT/US2004/032706 as filed - 62 pages, Form PCT/IB/301 Notification of Receipt of Record Conv - 3 pages</b></li> </ol>		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>10/530392</b>		INTERNATIONAL APPLICATION NO. PCT/US2004/032706		ATTORNEY'S DOCKET NUMBER 20030117-US		
The following fees have been submitted				<b>CALCULATIONS</b>	<b>PTO USE ONLY</b>	
21. <input checked="" type="checkbox"/> Basic national fee..... \$300				\$ 300		
22. <input checked="" type="checkbox"/> Examination fee If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)..... \$100 All other situations..... \$200				\$ 200		
23. <input checked="" type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100 International Search Report prepared and provided to the Office..... \$400 All other situations..... \$500				\$ 100		
<b>TOTAL OF 21, 22 and 23 =</b>				<b>\$ 600</b>		
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.						
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE			
- 100 =	/50 =		x \$250	\$ 0		
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(h)).				\$ 0		
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE			
Total claims	20 - 20 =	0	x \$ 50	\$ 0		
Independent claims	3 - 3 =	0	x \$200	\$ 0		
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360	\$ 0		
<b>TOTAL OF ABOVE CALCULATIONS =</b>				<b>\$ 600</b>		
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.				0		
<b>SUBTOTAL =</b>				<b>\$ 600</b>		
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$ 0		
<b>TOTAL NATIONAL FEE =</b>				<b>\$ 600</b>		
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$ 0		
<b>TOTAL FEES ENCLOSED =</b>				<b>\$ 600</b>		
				Amount to be refunded:	\$	
				Amount to be charged:	\$	
<p>a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed.</p> <p>b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. <u>190130</u> in the amount of \$ <u>600</u> to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>190130</u>. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>						
<p><b>NOTE:</b> Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.</p>						
<p>SEND ALL CORRESPONDENCE TO:</p> <p>Customer No. 42716 Maine &amp; Asmus PO Box 3445 Nashua, NH 03061-3445 United States of America</p>						
				 SIGNATURE		
				Scott J. Asmus NAME		
				42,269 REGISTRATION NUMBER		

10/530392

JC06 Rec'd PCT/PTO 06 APR 2005

## PCT INTERNATIONAL APPLICATION TRANSMITTAL LETTER

TRANSMITTAL DATE: 04 OCTOBER 2004

REGARDING THE APPLICATION OF: BAE SYSTEMS INFORMATION  
AND ELECTRONIC SYSTEMS  
INTEGRATION INC.

INTERNATIONAL APPLICATION NO.

INTERN' APPLICATION FILING DATE: HEREIN

ATTORNEY DOCKET NO: 20030117-PCT

ENTITLED: CONSTRAINED TRACKING OF GROUND OBJECTS USING  
REGIONAL MEASUREMENTS

EXPRESS MAIL CERT: EL 962 753 858 US

DATE: 04 October 2004

I certify that this application is being deposited with the U.S. Postal Service EXPRESS MAIL POST OFFICE  
TO ADDRESSEE under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop PCT,  
Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

☒ Debra A. Stengel☐ Scott J. Asmus, Reg. No. 42,269☐ Neil F. Maloney, Reg. No. 42,833

Signed

*Debra A. Stengel*

To the United States Receiving Office (RO/US):

Accompanying this transmittal letter is the above-identified application comprising 8 page  
PCT Easy Request, 1 page PCT Easy Fee Calc Sheet, 1 page Validation Log, 1 floppy  
disk of PCT Easy application forms, 1 page executed Power of Attorney-Applicant, 1  
page executed General Power of Attorney-Applicant/Inventor, 34 pages of Specification  
and Claims, 14 sheets of Drawings. The following requests are made of the RO/US:

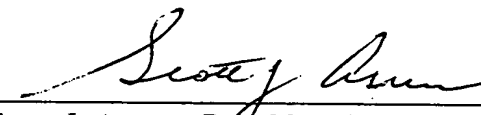
1. ☒ PREPARATION AND TRANSMITTAL OF CERTIFIED COPY OF PRIORITY DOCUMENTS- Please prepare and transmit to the International Bureau a certified copy of the United States origin priority documents identified in Box VI of the Request form (37 CFR 1.451).
2. ☒ DISCLOSURE INFORMATION-- In order to assist in screening the accompanying International application for purposes of determining whether a license for foreign transmittal should and could be granted, the following information is supplied:
  - A. ☐ There is no prior filed application relating to this invention.
  - B. ☒ There are two prior applications, US 60/509,835, filed 08 October 2003, and US 60/604,224, filed 24 August 2004, which contains subject matter that is
    1. ☒ substantially identical to that of the accompanying International application.
    2. ☐ less than that of the accompanying International application. The additional subject matter of the International application appears on page(s) and line(s) \_\_\_\_\_
    3. ☐ more than that of the accompanying International application.
  - C. ☐ Disclosure information cannot be covered by the language of Points 2A or 2B above due to the involvement of several prior applications or for other reasons. A separate sheet on which the disclosure information is explained is attached to this transmittal letter.
3. ☒ REQUEST FOR FOREIGN TRANSMITTAL LICENSE-- According to the provisions of 35 USC 184 and 37 CFR 5.11, a license to transmit the accompanying International application to foreign agencies or international authorities is hereby requested.

AGENT: BAE  
JOB#: 30030117-PCT  
RCVD: 10/4/04  
RSPBY: \_\_\_\_\_  
RCVDBY: CAS  
FSUM: \_\_\_\_\_  
CAL: \_\_\_\_\_  
DKT: \_\_\_\_\_  
NOTICE: \_\_\_\_\_  
T/S: \_\_\_\_\_

4. [X] DEPOSIT ACCOUNT 190130 AUTHORIZATION – The Office is hereby authorized to charge the required fee, and any deficiency or credit any overpayment in the fees to the above deposit account, owned by BAE SYSTEMS Information and Electronic Systems Integration Inc. an authorized signator for which is Kevin M. Perkins, V.P. & Company Counsel, and for whom the undersigned are authorized agents.

Date: Oct 4, 2004

Maine & Asmus  
PO Box 3445  
Nashua, NH 03061-3445  
Tel. No. (603) 886-6100, Fax. No. (603) 886-4796  
Info@maineandasmus.com

  
\_\_\_\_\_  
Scott J. Asmus, Reg. No. 42,269  
Neil F. Maloney, Reg. No. 42,833  
Andrew P. Cernota, Reg. No. 52,711  
Attorneys/Agents for Applicant

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: HANEY, Philip J.

Group Art Unit:

Serial No.

Examiner:

Filed: Herein

Atty. Dkt. No: 20030117-US

FOR: CONSTRAINED TRACKING OF GROUND OBJECTS USING REGIONAL  
MEASUREMENTSTo: Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Fm:

42716

CERTIFICATE OF MAILING 37 CFR 1.10: I certify that this correspondence is being deposited on the below date with the U.S. Postal Service with sufficient postage as EXPRESS MAIL POST OFFICE TO ADDRESSEE addressed to: Mail Stop PCT, Commissioner for Patents, PO Box 1450 Alexandria, VA 22313-1450.

Date: 06 April 2005Debra A. Stengel  
☒ Debra A. Stengel or ☐ Andrew P. Cernota, Reg. No. 52,711

Dear Honorable Commissioner:

TRANSMITTAL COVER SHEET

Submitted herewith, pursuant to 35 U.S.C. 371, is a US National Stage Patent  
Application of International Application No. PCT/US2004/032706 consisting of:

2 pages Transmittal Letter To The United States Designated/Elected Office Concerning a Filing  
Under 35 U.S.C. 371,

3 pages Application Data Sheet,

62 pages copy of PCT application as filed,

3 pages Form PCT/IB/301 Notification of Receipt of Record Copy.

10/530392

EXPRESS MAIL CERTIFICATE EL 962 753 141 US

J006 Reg. PCT/PTO 06 APR 2005

DEPOSIT ACCOUNT **190130** AUTHORIZATION – The Office is hereby authorized to charge the required fee, and any deficiency or credit any overpayment in the fees to the above deposit account, owned by BAE SYSTEMS Information and Electronic Systems Integration Inc. an authorized signator for which is Kevin M. Perkins, V.P. & Company Counsel, and for whom the undersigned are authorized agents.

Respectfully submitted,



Scott J. Asmus, Reg. No. 42,269  
Andrew P. Cernota, Reg. No. 52,711  
Attorneys/Agents for Applicant

Cus. No. 42716  
Maine & Asmus  
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